

OBG | There's a way

May 11, 2018

Mr. Jason Canterbury, FPS Environmental Manager
The Chemours Company, Washington Works
8480 DuPont Road
Washington, West Virginia 26181
e-mail: jason.canterbury@chemours.com

RE: Proposal for Source Emission Testing Services – C3 Dimer Acid

FILE: 32619/CRM49771

Dear **Jason**:

O'Brien & Gere (OBG) is pleased to provide The Chemours Company (Chemours) with this revised proposal to conduct source emission testing at its Washington Works facility located in Washington, West Virginia. OBG is aware that as part of a Consent Order, Chemours is required to demonstrate the removal efficiency of C3 Dimer Acid from the Deep Bed Scrubber using mass balance calculations. It is OBG's understanding that Chemours is looking to compare their mass balance calculations with actual field sampling data. The following proposal has been revised in accordance with our onsite meeting on May 1, 2018 to include an additional influent sampling location.

SCOPE OF SERVICES

SOURCE EMISSION TESTING

Source emission testing will be conducted at the inlet and outlet of three process scrubbers (FEP, PFA and PTFE) to evaluate emissions of C3 Dimer Acid. Three 180-minute test runs will be conducted simultaneously at the inlet and outlet of each scrubber during a single process operating condition. Note that there are two inlet streams (Scrubbers 2 and 3) associated with the FEP process. Also, note that testing of each scrubber will be conducted sequentially. C3 Dimer Acid emissions will be evaluated in accordance with a modified USEPA Method 0010 sample train. Collected samples will be delivered to Test America Laboratory in Knoxville, Tennessee and analyzed in accordance with SW-846 Method 3542 using liquid chromatography and dual mass spectroscopy.

In conjunction with each test run, exhaust gas velocity will be evaluated in accordance with USEPA Methods 1 and 2. Exhaust gas oxygen (O₂) and carbon dioxide (CO₂) levels will be evaluated in accordance with USEPA Method 3 (Fyrite apparatus). Exhaust gas moisture content will be evaluated in accordance with USEPA Method 4 procedures. These data will be used to derive pollutant mass emission rates from measured concentrations.

SOURCE TEST REPORTS

C3 Dimer Acid test results will be made available approximately three weeks following completion of the field work. A draft test report summarizing the test results will be prepared and submitted to Chemours approximately four weeks following completion of the field effort. The report will contain a summary of the testing program, process operating data (provided by Chemours), test methods, equipment calibration data, laboratory analytical data, field data, calculations, and test results. Three copies of the final bound report, along with an electronic copy, will be submitted to Chemours within one week following receipt of your comments.



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FACILITY REQUIREMENTS

The facility will be responsible for the following:

- one 110v, 20-amp circuit within 100 feet of the test location
- monitoring and recording of required process operating data
- appropriate test locations including test ports
- safe access to test locations to include a test platform, man-lift and/or scaffolding
- required process sampling and analysis (if any)
- loosening of test port caps and cleaning of all test ports (if necessary)

PROJECT FEE AND TERMS

OBG proposes to conduct the source emission testing program outlined above on a lump sum, fixed fee basis. The fees for project labor/project expenses and analytical costs are provided separately below.

Project Labor, Miscellaneous Expenses, and Per Diem Costs	\$57,500
Laboratory Analytical Fee	\$102,000
Total Project Fee	\$159,500

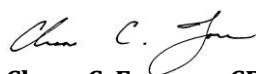
These fees are based on a single mobilization to the facility and the anticipated field schedule provided below.

Day of Week	Activity	Hours on-site
Monday	Travel, review site safety procedures and setup test equipment on FEP Scrubber.	8
Tuesday	Conduct three 180-minute test runs for C3 Dimer Acid at FEP Scrubber. Move equipment to PFA Scrubber	12
Wednesday	Conduct three 180-minute test runs for C3 Dimer Acid at PFA Scrubber. Move equipment to PTFE Scrubber.	12
Thursday	Conduct three 180-minute test runs for C3 Dimer Acid at PTFE Scrubber.	12
Friday	Tear down equipment and demobilize.	4

Additional mobilizations to the facility, hours on-site due to process operating problems, or changes to the scope of services required by Chemours will result in additional fees. Other items not included in our fees are presented in Exhibit B "Exclusions." These fees will increase the lump sum fee in accordance with the attached labor rate schedule. We propose to perform this project in accordance with the attached Standard Service Terms and Conditions.

We look forward to working with you and Chemours on this project. If you have any questions regarding this proposal, please do not hesitate to contact me at (513) 697-2035.

Very truly yours,
O'BRIEN & GERE ENGINEERS, INC.



Chase C. Forman, CPG
Project Manager

O'BRIEN & GERE ENGINEERS, INC.



Matthew Traister, P.E.
Vice President

Attachments: Exhibit "B" – Exclusions
2018 Hourly Billing Rates
Standard Service Terms and Conditions

cc: Patrick Grady – OBG



EXHIBIT "B"

O'BRIEN & GERE ENGINEERS, INC. **Exclusions**

The fees outlined in our proposal do not include, and O'Brien & Gere (OBG) is not responsible for, the following items:

1. *Field Delays* - Client shall be responsible for incurred costs resulting from field crews delays or lost time (greater than four hours per test program) due to force majeure events or causes beyond OBG's control including, but not limited to: severe weather (lightning, heavy rain, high winds, etc.), cyclonic flow, process upsets or failure, electrical power interruptions, unprepared site (see Item 2, below) or the inability to maintain the desired process conditions. Additional costs incurred may include labor, extra travel and living expenses and equipment usages.* OBG shall be responsible for incurred costs resulting from delays and lost time to the extent caused by OBG; however, OBG is not liable for any ancillary costs incurred by the Client (such as fuel costs, overtime, etc.) resulting from such delays.
2. *Site Access and Preparation* - Where required, Client shall be responsible for and shall provide manlifts or scaffolding, loosened and cleaned test ports, and 110/220/480V power as specified for each location. Working platforms, such as scaffolds, manlifts and catwalks must comply with OSHA's fall protection standards. OBG will supply its own fall protection equipment (safety harnesses, lanyards, safety climbs, etc.), but the facility is responsible for ensuring that its working surfaces are designed to applicable codes and in acceptable condition. OBG can identify, under a separate scope of work, measures that can be used to attain compliance.
3. *Data Comparison and Evaluation* - OBG shall assess data quality with respect to the test method's quality assurance procedures and criteria. In some cases, OBG will investigate correlations between test data and process conditions in an attempt to identify the cause of suspect data. However, costs associated with extensive research and evaluation of results to investigate discrepancies with process conditions or comparing results with other similar processes are not included unless specifically described in the scope of work.
4. *Process Data Reduction and Recording* - Client's plant personnel shall be responsible for recording process operating data that are required to document test conditions during all test periods and this data shall be provided to OBG for inclusion in the test report. Process data should be in a format that does not require further reduction or reformatting. Reduction or reformatting of process data can be provided at additional costs.*

* Any additional costs will increase the original project fee in accordance with the attached fee schedules.

O'Brien & Gere Engineers, Inc. 2018 Hourly Billing Rates*

LABOR CATEGORY	Hourly Billing Rates
Senior Officer	\$235
Officer	\$220
Senior Managing Engineer/Scientist, Senior Project Manager	\$210
Managing Engineer/Scientist, Project Manager	\$180
Managing/Project Associate, Certified/Senior Industrial Hygienist	\$165
Senior Engineer/Scientist	\$130
Project Engineer/Scientist	\$110
Project Controls Administrator, Executive/Senior Secretary	\$103
Senior Technician	\$100
Engineer, Scientist	\$87
Technician, Project Accountant, Secretary	\$73

Expert Testimony

150 % of Hourly Rate

DIRECT EXPENSES	Billing Markups
Other Direct Expenses: Travel lodging and meals, lab and field supplies, drawing and report reproduction, shipping samples and equipment, and other project specific direct expenses	At cost plus 10%
Mileage	IRS Rate
Subcontractors	At cost plus 10%

* - O'Brien & Gere reserves the right to adjust these labor rates annually at any time after 12 months from the signing of the agreement. Rate increases will not exceed 3% of the current rates.



O'BRIEN & GERE ENGINEERS, INC. STANDARD SERVICE TERMS AND CONDITIONS

1. **Definitions.** As and when used in this Agreement, each of the following terms shall have the meaning set forth below:
 - a) **Agreement** shall mean this Proposal, including the following: Letters of Authorization or the job specific terms on the face of any Purchase or Change Order and the other Exhibits incorporated in this Proposal.
 - b) **Law** shall mean federal, state, and local statutes, laws, ordinances, rules, regulations, and codes applicable to Services.
 - c) **Losses** shall mean monetary damages suffered or costs and expenses incurred, including interest and reasonable attorney's fees, as a result of any demand made, cause of action asserted, judgment or decree entered, or any fine or penalty imposed, or any settlement payment consented to by both parties in connection with this Agreement.
 - d) **OBG** shall mean the company issuing the Proposal, O'Brien & Gere Engineers, Inc., unless otherwise stated in the Proposal.
 - e) **Project** shall mean the overall work to be performed, including Services to be performed by OBG or others on behalf of Client at or in connection with project site(s).
 - f) **Reimbursable Expenses** shall mean the expenses reasonably incurred by OBG, its agents and subcontractors in performing Services, including, but not limited to, materials, supplies, use of specialized equipment, travel and subsistence costs, including mileage, cellular and non-local telephone and other communication charges, express delivery, postage and freight charges, word processing, computer processing and reproduction and printing charges required in providing Services, and technical services by others, plus permit fees, taxes, charges and assessments on Services (unless specifically included in the Scope of Services).
 - g) **Services** shall mean the professional, technical and other consulting services, work or tasks to be performed by OBG and its subcontractors as described in the Proposal.
2. **Changes in Scope.** Client shall have the right within the general purpose and intent of the Project to change, add or delete items from Services in writing and subject only to the agreement of OBG with respect to the effect on cost and schedule.
3. **Payment.** Payment of OBG's monthly invoice shall be due upon receipt. Balances more than thirty (30) days past due shall accrue interest at the rate of 1% per month or part thereof until paid.
4. **Term.** Unless otherwise provided in this Agreement, the Term hereof shall be from the date this Agreement is signed by both Client and OBG until the obligations imposed hereunder are fully satisfied or this Agreement is otherwise terminated. All Services shall be deemed to have been performed during the Term hereof.
5. **Status.** Except as otherwise provided in this Agreement, OBG shall perform the Services as an independent contractor and shall have sole control over the employment, assignment, discharge and compensation of its employees. OBG shall be solely responsible for complying with all applicable, federal, state and local employment, wage, tax, and insurance laws and licensing requirements.
6. **Standard of Care.** OBG agrees to correct or re-perform, without additional cost to Client, any Service not performed in accordance with the professional standard of care prevailing at the time and in the place where such Service is performed.

7. **Insurance.** Throughout the term of this Agreement, OBG shall maintain insurance in amounts not less than shown:

a) Worker's Compensation	Statutory amount where Services are performed
b) Automobile	\$1,000,000
c) General Liability	\$1,000,000
d) Professional Liability	\$1,000,000
e) Excess Umbrella	\$3,000,000 on "b" & "c"

Client agrees to require all third parties engaged by or through Client in connection with the Project to provide OBG with current Certificates of Insurance endorsed to include OBG as an additional insured on their "b," "c" and "e" policies of insurance and authorizes OBG to enforce this provision directly with all Project related third-parties.

8. **Compliance with Law.** OBG shall comply with all Law applicable to Services, including federal and state Equal Opportunity Laws, orders and regulations, and further, OBG shall not discriminate against any employee or applicant for employment on the basis of age, race, color, religion, sex, disability or national origin.
9. **Confidentiality.** Except when 1) authorized by Client in writing, 2) previously and independently known, 3) subsequently published through no fault of OBG or 4) lawfully obtained from a third party having independent knowledge, OBG shall treat as confidential all information obtained from Client. OBG shall provide Client with reasonable notice of and an opportunity to legally resist any effort by a third party to obtain disclosure of confidential information. OBG shall be permitted to comply with any judicial order. Client information marked confidential shall be returned to Client at the conclusion of Services.
10. **Patents.** Patentable ideas, products, equipment, materials or processes ("Ideas") developed, in whole or in part, with proprietary information or assistance of Client shall be the property of Client; provided, however, that OBG shall have an unlimited, royalty free, nonexclusive, nontransferable (other than to its successors), world-wide license for their use, reproduction, manufacture and sale. Ideas developed by OBG during or as part of its performance of the Services which do not depend on proprietary information or assistance provided by Client shall be the property of OBG; provided, however, that Client shall have an unlimited, royalty free, nonexclusive, nontransferable license for their use by and for Client.
11. **Client Responsibilities.** Client shall on a continuing basis throughout the term of this Agreement:
 - a) maintain a designated representative, who shall be reasonably available to meet with OBG on Client's behalf;
 - b) provide OBG with all relevant Project related data available to Client, and unless otherwise provided in the Scope of Services, Client shall provide OBG with accurate, current land surveys showing the location of on-site utilities and subsurface structures, test boring logs and other subsurface information necessary for performance of Services;
 - c) provide all negotiation for, and acquisition of, lands, rights-of-way and easements required for performance of Services;
 - d) arrange for access, entry and use of property of Client (including utilities thereon) and others, as and when reasonably required by OBG for performance of Services.

12. **Additional Cost or Delay.** OBG shall not be responsible or liable for delay or additional Project cost resulting from:
- a) the lack or insufficiency of performance by any person or entity not selected by, engaged by, and responsible to OBG,
 - b) changes, delays or additional Services not necessitated by the acts or omissions of OBG,
 - c) unreasonable or repeated delay in response to requests, applications or reviews by Client or third parties.
 - d) damage to underground utilities or structures not accurately located on plans, maps or figures furnished to OBG.
13. **Change in Law.** Client shall bear the cost of any material change in or addition to Services resulting from a change in Law or interpretation effective after the date of this Agreement.
14. **Force Majeure.** Neither party shall be liable for loss or damage suffered by the other as a result of any failure or delay in the performance of its obligations under the Agreement caused by a Force Majeure event or circumstance beyond its reasonable control. The party relying on this provision shall give prompt notice to the other party of the event or circumstance and shall take all reasonable steps to resume performance at the earliest possible date. In the event of a Force Majeure, the time for performance of Services shall be extended by the number of days from the date notice is given until performance is able to be resumed.
15. **Other Use of Results.** Client acknowledges that deliverable documents, drawings and data in whatever form ("Documents") produced directly or indirectly through the efforts of OBG in performing Services and any analyses, recommendations, or conclusions ("Results") they contain are based upon the specific circumstances and conditions of the Project and are intended solely for use by Client in connection with the Project.
- Any change or other than agreed upon use of Documents or Results shall be at the sole risk of Client. Regardless of when delivered, Documents and Results shall become the property of Client upon OBG's receipt of payment. Client agrees to defend, indemnify and hold harmless OBG from and against any and all Losses arising from Client's direct or indirect use of Documents or Results, other than in connection with Project.
16. **Suspension of Services.**
- a) Client shall have the right to suspend all or part of the Services, provided, Client gives OBG at least seven (7) days' notice of the dates each suspension is to begin and end. In the event Client suspends Services for period(s) totaling more than ninety (90) days, Client agrees to pay reasonable costs incurred by OBG in (i) preserving and documenting Services performed or in progress, and (ii) demobilizing and remobilizing Services.
 - b) In the event Client does not make timely payment of the invoiced amounts as provided herein, OBG shall in addition to its other rights, have the right, upon seven (7) days' notice, to suspend performance of all or part of the Services until (i) all past due amounts are paid, and (ii) satisfactory assurance of prompt future payment is received.
17. **Indemnification.**
- a) Subject to paragraph 19 of these Standard Service Terms & Conditions, OBG agrees to defend, indemnify and hold harmless Client, its directors, officers, employees, agents, successors and assigns from Losses to the extent and in the proportion caused by the willful misconduct or negligent acts, errors or omissions of OBG, its directors, officers, employees, and its agents, subcontractors, successors and assigns.
 - b) To the extent and in the proportion not caused by the willful misconduct or negligent acts, errors or omissions of OBG, its directors, officers, employees or its agents, subcontractors, successors and assigns, Client agrees to defend, indemnify and hold said persons harmless from Losses arising in connection with Project.
18. **Limitation of Damages.** The parties waive any right they may have at law or in equity to demand or receive consequential or punitive damages.
19. **Liability.** The maximum liability of OBG, its directors, officers, employees and its agents, subcontractors, successors and assigns to Client pursuant to this Agreement, including paragraphs 6 and/or 17a of these Standard Service Terms & Conditions, shall be limited to Five (5) times the Agreement amount, but in no event more than \$1,000,000.
20. **Mediation of Disputes.** The parties agree to make a good faith effort to resolve any controversy, dispute or claim arising out of, or related to, this Agreement ("Dispute") by the use of alternative dispute resolution procedures provided herein, prior to, and as a condition of, commencing any action or proceeding at law or in equity. Specifically, each party agrees to provide the other prompt written notice of the specific subject(s) and/or circumstance(s) in Dispute. If the Dispute is not resolved to the mutual satisfaction of the parties within ten (10) days of receiving notice, either party may request mediation. Mediation shall be 1) by a qualified, experienced mediator agreeable to both parties as supplied by the American Arbitration Association, Endispute, Inc., or other mutually agreeable source, 2) at the earliest available date of the mediator, and 3) in the major city closest to the Project site where OBG's Services are performed or as otherwise agreed by the parties. The cost of mediation services shall be shared equally by the parties.
21. **Termination.** Either party shall have the right to terminate this Agreement without cause upon thirty (30) days' notice.
22. **Modification.** This Agreement shall not be modified or replaced, in whole or in part, except by written amendment signed by both parties.
23. **Notice.** All notices shall be given to the other party in writing by hand delivery, by express service providing proof of delivery, by facsimile transmission and/or by registered mail, postage paid, return receipt requested, at the address appearing on the first page of this Agreement or such other address as the parties shall from time to time give notice.
24. **Interpretation.** This Agreement shall be interpreted and enforced in accordance with the Laws of the State of New York except for its choice of law rules.
25. **Severability.** If any provision of this Agreement is determined or declared by a court of competent jurisdiction to be invalid or otherwise unenforceable, all remaining provisions of this Agreement shall be unaffected and shall be interpreted so as to give the fullest practicable effect to the original intent of the parties.
26. **Waiver.** Unless otherwise agreed in writing, neither party's waiver of the other's breach of any term or condition contained in this Agreement shall be deemed a waiver of any subsequent breach of the same or any other term or condition of this Agreement.
27. **Integration.** This Agreement shall constitute the entire agreement between the parties. There are no representations or other agreements, oral or written, between the parties other than as set forth in this Agreement.